Nabishi®
RADIO and COMMUNICATIONS

AZAAN

de luxe receiver

Model DR-01

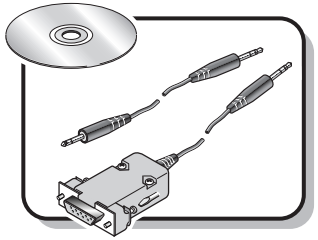
User Manual

Contents

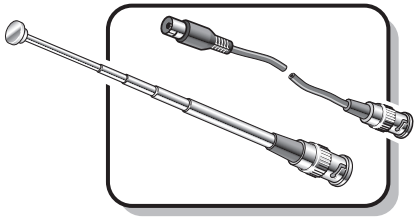
item	page
Packing List	3
Introduction	4
Main Features	5
Receiver Layout	6
Receiver Connections	7
LCD Display	8
Basic Operation	9
Programming - By Keypad	11
Programming - By PC	14
Questions & Answers	18
Additional Accessories	18
Trouble Shooting	19
Technical Specification	19
Factory Settings	20

Packing List

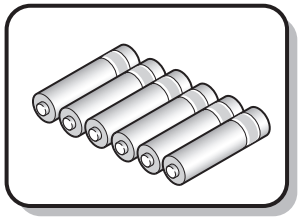
receiver



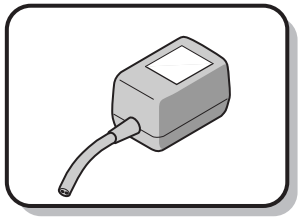
programming leads for PC & CD



telescopic aerial & BNC adaptor cable



6 rechargeable batteries



charger

user manual

Important Note - Battery Packs

The rechargeable batteries (supplied) have not been charged before dispatch from the factory and should be charged before using. **The first charging of the battery packs will not reach full capacity.** Full capacity will be reached after being charged and discharged 2 to 3 times. If the rechargeable batteries are not installed in the receiver the charger unit or *AA alkaline batteries can be used to supply the power.

***Warning**

When non-rechargeable (ALKALINE) batteries are fitted, please do not connect the charger unit.

Introduction

Assalam Alaikum

Thank you for purchasing our Deluxe Azaan Receiver (also known as a Call-to-Prayer receiver). We have spent a lot of time and effort in the past 2 years developing this dedicated device and we hope that you will be Inshallah, pleased with the result, the performance and quality of our product.

Our company, Nabishi UK Ltd has been designing, manufacturing, distributing radio communications equipment since 1984 and is proud to have a world-wide reputation for quality products, first class service and in-depth knowledge of communications.

The call of the Azaan is such a beautiful and overwhelming sound that it silences the wind and stuns animals and birds into a peaceful calm. It is such a powerful and important prayer which is a part of our everyday life that we must strive to ensure that the Azaan is received into our homes throughout the day, everyday.

We hope that you will derive as much pleasure from this unit as we have from producing it, please pray for its success.

With thanks and kind regards

Amjad

Amjad P. Chowdhary
Managing Director

Main Features

This UHF band Deluxe Receiver has been specially designed for the UK Azaan Systems which are licensed by OFCOM, a radio licensing authority. We have devoted a lot of time and effort into producing the unit from concept, design to manufacture, ensuring that your Deluxe Receiver is as versatile as possible.

Some special features detailed in the following chapters are:

- User programmable channel input via keypad or PC *(PC cables and software supplied)*
- 99 channels *(all known mosque channels are factory pre-programmed)* others can be added as required
- Scanning with **automatic revert to your own mosque** *(a user defined Priority scan function monitors some or all of your local mosques)*
- Loud and clear audio from the internal speaker and output for external speakers or earphones
- Battery and signal strength indicators
- Backlit LCD display shows channel number and name of mosque to easily locate your mosque *(user definable).*
- Use on desk-top, wall mounted or portable *(rechargeable batteries and charger are supplied)*
- **Quick-Keys** to select four pre-programmed most commonly used channels

Receiver Layout

Quick-Keys
Channel Access

These give immediate access to the channel assigned to them. Channel has to be programmed first for these to function

Programming Keys

Used to enter alpha-numeric characters into the receiver when programming.
Use same technique as mobile phone.
eg:
***A** = press key **2** once*
***B** = press key **2** twice*
and so on...

Function Keys

Have various functions detailed later in the manual from SCAN to VOLUME adjustment and programming

Receiver Connections

Aerial Socket

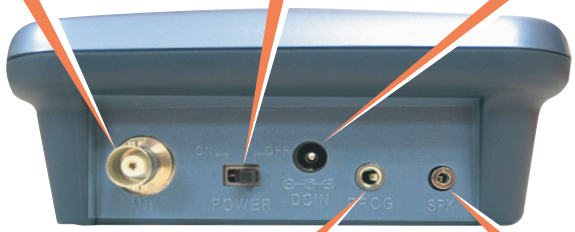
*To connect aerial supplied to the receiver - **fully extend** to give maximum performance. This BNC socket also connects receiver to external aerial via cable supplied.*

ON/OFF Switch

Switches the receiver on & off. If rechargeable batteries are installed in the receiver, these will continue to be charged.

DC Power Socket

To connect the mains charger supplied. This supplies low voltage power to the receiver and also charges the six rechargeable battery cells when fitted.

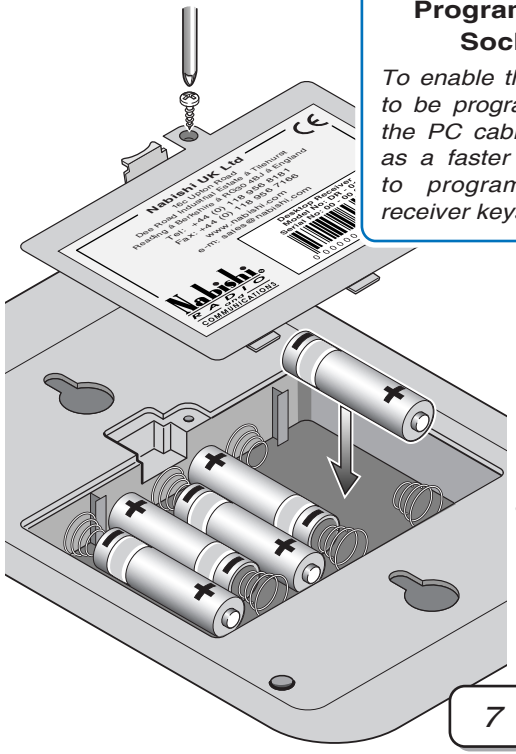


Programming Socket

To enable the receiver to be programmed via the PC cable supplied as a faster alternative to programming via receiver keys.

Audio Output Socket

Audio output to external speakers or personal headphones via 2.5mm jack plug



Battery Insertion

Remove cover screw and fit cells as shown.

Note: Do not dispose of any batteries by incineration.

LCD Display Description

Signal Strength Indicator

Indicates the mosque signal strength

CTCSS Indicator

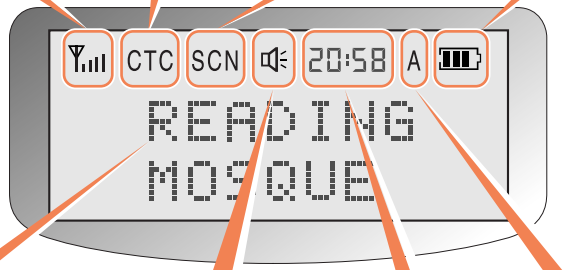
There is a CTCSS tone set in this channel. The Azaan message signal from your mosque automatically activates the receiver

Scanning Indicator

Receiver is in scanning state. This scans all selected channels

Battery Power

Internal rechargeable battery indicator



Main Display

Can be user programmed with mosque name or the channel number

Squelch Indicator

The squelch (mute) has been opened. This cuts out background static noise from the speaker when no signal is being received

Time Display

Displays in 24 hour mode.

Scan List Indicator

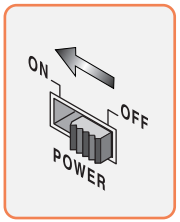
A = This channel has been added to your scanning list

Basic Operation

Switching Receiver On

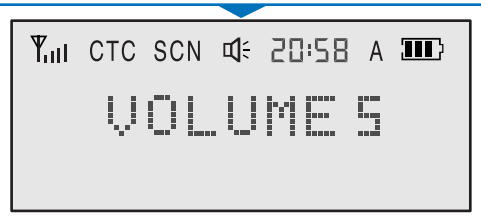
Slide the ON / OFF switch to ON position, a 'bleep' will be heard. Ensure the unit is powered by:

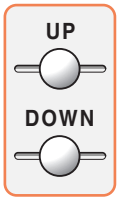
- *DC Charger - supplied*
- *Six Rechargeable Batteries - supplied*
- *Six Alkaline Batteries - **see note on page 3***



Volume Adjustment

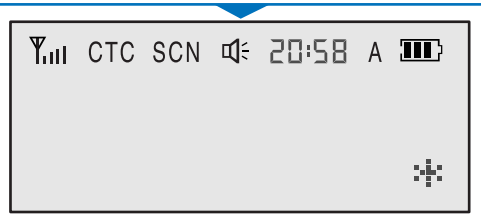
Press the [VOL] key and you will hear a background noise & VOLUME level will be displayed. To adjust the volume press [UP to 10] or [DOWN to 1]. If you wait for 5 seconds the display reverts to normal state.





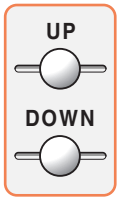
Keypad Lockout

To avoid accidental operation of the receiver press the asterisk button for 3 seconds to lock the keypad. When locked, an asterisk appears at bottom right of display. To unlock press the asterisk button again for 3 seconds.



Channel Adjustment

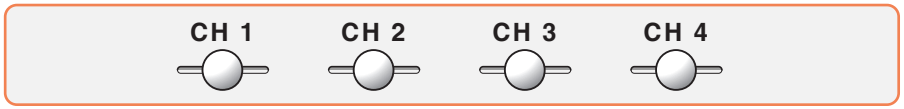
Press [UP] or [DOWN] keys to increase or decrease from CH:01 to CH:99



Basic Operation – *cont ...*

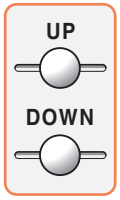
Quick - Keys *or Quick Channel Access*

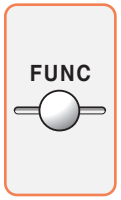
Press one of the Quick-Keys to take you direct to that channel.
eg CH 1 to take you direct to Channel 1.
Note: These four channels must be programmed (not empty) for this to work



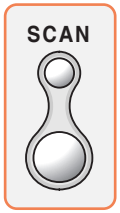
Channel Name Setting

Press [FUNC] key and the display will show channel or function setting. Press [FUNC] again for submenu. Set mosque name using keypad. Operation as a mobile phone. [#] = CAPS / lower case





Scanning Preset Channels



Press [SCAN] key & receiver will scan all preset memory channels. When an Azaan signal is present scanning pauses, & when this disappears, scanning continues. Time between channels can be preset. If either CTCSS or DTMF is set on the channel, signals only stay on channel with same code, squelch is opened.
For channels preset with CTCSS the receiver will stay tuned to the channel only when the calling code decodes with preset channel CTCSS then continues to scan after preset delay. If channel is preset with squelch, it will stay on the channel when it receives signals & will open when receiving the same DTMF.

The receiver returns to scan for priority channel & if a signal is received, no matter what channel number, scanning will only continue after the call is complete and delay time passed.

Press [SCAN] again to stop scanning.

Programming – by Keypad

Channel / Memory Programming by Keypad

Before starting this procedure please ensure this information is available:

1. ***Mosque Frequency*** **as licensed by OFCOM - obtain this from your mosque eg: 454.40625 MHz*
2. *Allocated ****CTCSS*** *of the mosque. eg: 123 Hz*

Press [FUNC] key CHANNEL setting - Press [FUNC] again.
Enter ***Mosque Frequency*** *using keypad. eg: 454.40625 MHz.*

Enter ***CTCSS*** *code from table below. eg: 18 = 123.0 Hz.*

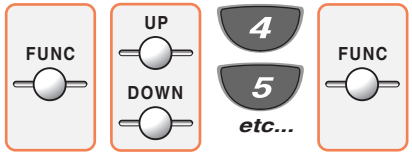
1	67.0	11	97.4	21	136.5	31	192.8
2	71.9	12	100.0	22	141.3	32	203.5
3	74.4	13	103.5	23	146.2	33	210.7
4	77.0	14	107.2	24	151.4	34	218.1
5	79.7	15	110.9	25	156.7	35	225.7
6	82.5	16	114.8	26	162.2	36	233.6
7	85.4	17	118.8	27	167.9	37	241.8
8	88.5	18	123.0	28	173.8	38	250.3
9	91.5	19	127.3	29	179.9		
10	94.8	20	131.8	30	186.2		

Press [FUNC] again

DTMF *- this is a special paging code.*
Press [FUNC] again select ADD or DEL (to add to SCAN list or remove) Press [FUNC] again

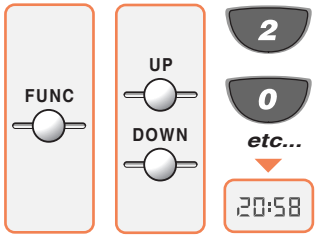
Channel Spacing

Enter channel spacing normally 12.5 kHz (in the UK).
(Note: some older systems may be 25kHz). Press [FUNC] again.
Channel programming is now complete



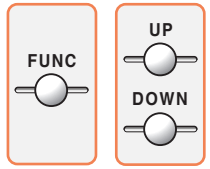
Clock Setting

Press [FUNC] key then use [UP] & [DOWN] keys until FUNCTION SETTING is displayed then [FUNC] again quickly. Clock numbers flash as 12:00. Now use keypad to set the current time & wait 3 seconds.



Programming – by Keypad – *cont ...*

Squelch Settings



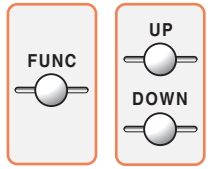
Press [FUNC] & [UP] & [DOWN] set squelch level:

- *1 = Background noise*
- *2 = Normal setting*
- *3 = Quiet - when close to mosque*

Press [FUNC] again. If both CTCSS & DTMF are preset and either one matches the calling code, then the call will be received. If the DTMF decodes, it will 'bleep' 3 times then squelch opens & squelch sign displayed, remains for 10 seconds after the signal disappears. Meanwhile squelch sign stops flashing when a signal is received. Press [VOL] key to close squelch.

Delay Time

Pause between Channels when Scanning



Press [FUNC] & [UP] & [DOWN] set delay time - normally 1.0 second Press [FUNC] again

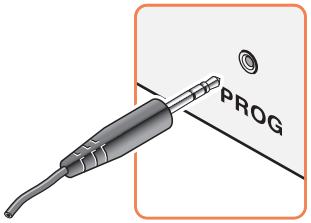
Back-lighting for LCD Display

The LCD back light can be user defined for one of three options:
Press [FUNC] & [UP] & [DOWN]

- *ON: LCD light will remain ON continuously*
- *OFF: LCD light will remain OFF*
- *NORMAL: LCD light will be ON for 10 seconds when any key is pressed. Press [FUNC] again.*

Wire Clone

Connect 'master' (fully programmed) receiver & second receiver (to be programmed) with the cloning cable.
Master radio: Press [FUNC] & [SCAN] for two seconds simultaneously to start the Wire Clone procedure & '-C-' will be displayed, then press [VOL] key to transfer the preset data from the 'master' to the second receiver.
'END' is displayed after data transfer is complete. Press [SNC] to return to normal.
Second receiver: When 'master' receiver transfers data, screen displays Signal Sign & '-PC-,.
When the data transfer is complete, screen displays ' END'.



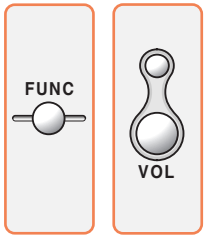
Cloning Lead

Programming – by Keypad – *cont …*

Reset Receiver Data**

*To clear **all** stored data & reset to factory default values: with the receiver turned OFF press & hold [FUNC] and [VOL] keys simultaneously & turn receiver ON. Display will show CLR.*

***Note As this will erase the mosque frequencies etc, ensure you have these stored elsewhere**



NG01 Programming – by software supplied

For ease of use, the CD which accompanies your Deluxe Azaan receiver has a WINCAM Player file which when clicked on will run a demonstration video of how to program your own unit.

Although the Deluxe receiver can be programmed using its keypad, by far the easiest and the quickest way to set up or program the Deluxe Receiver is by using the supplied software and programming leads.

Please check for the latest version of this software by visiting our website at **http://www.nabishi.com**

We recommend that you input all the Frequencies (channel information) using your PC as this will save a lot of time. This is very easy to do and you can save the data which you have programmed into the receiver on your PC.

*The easiest way to reprogram a Deluxe receiver (and ensure the least amount of confusion) is to **READ** the data from the receiver onto your PC, make the necessary amendments (i.e. add or delete your channels) and then **WRITE** the data back into the Deluxe receiver.*

Hardware & Software Requirements

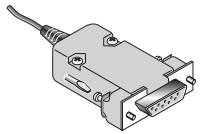
PC 486 or higher, 1 com port (serial port) and a minimum screen resolution of 800 x 600

Operating System:
English Windows 95/98/ME/2000 or Windows XP Home or Professional.

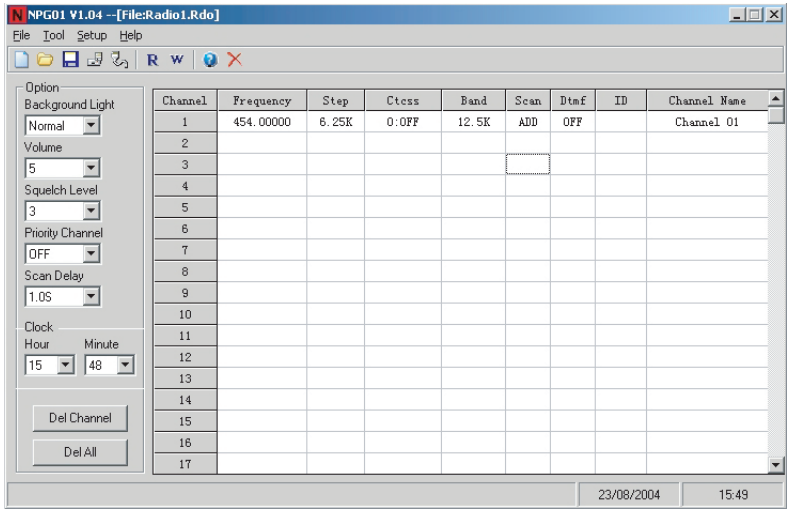
Software Installation:
On the CD supplied there are options which when 'clicked' automatically install the Program software onto your PC.

NG01 Programming – by PC – *cont …*

Connecting the Equipment



1. Make sure the PC is switched off
2. Connect the 9 pins (DB9) cable to one of the PCÕs Com Ports:
   - **COM1, COM2, COM3 or COM4**
3. Turn the PC on.
4. Make sure the receiver is switched off
5. Connect the supplied cable between the Deluxe
   - Receiver and the Serial Port of the PC
6. Turn the receiver on



Main Screen

Programming Overview

1. Modifying data previously written to a receiver
   - a. Read the transceiver data - ***(Tools/Read Data)***
   - b. Modify the data
   - c. Write the modified data to the receiver - ***(Tools/Write Data)***
   - d. Copy the data to disk if necessary - ***(File/Save As)***
2. Creating and writing new data to a receiver
   - a. Input all necessary frequency / channel information.
   - b. Write the data to the receiver - ***(Tools/Write Data)***
   - c. Copy the data to disk if necessary - ***(File/Save As)***
3. Modifying disk data, then writing to a receiver
   - a. Read the disk data - ***(Tools/Read Data)***
   - b. Modify the data
   - c. Write the data to the receiver - ***(Tools/Read Data)***
   - d. Copy the data to disk if necessary - ***(File/Save As)***

NG01 Programming – by PC – *cont ...*

File Options
As with most software these File Options are self-explanatory.
Hovering the mouse over these icons will reveal their purpose. The online help screen may have more recent information on programming than in this manual.

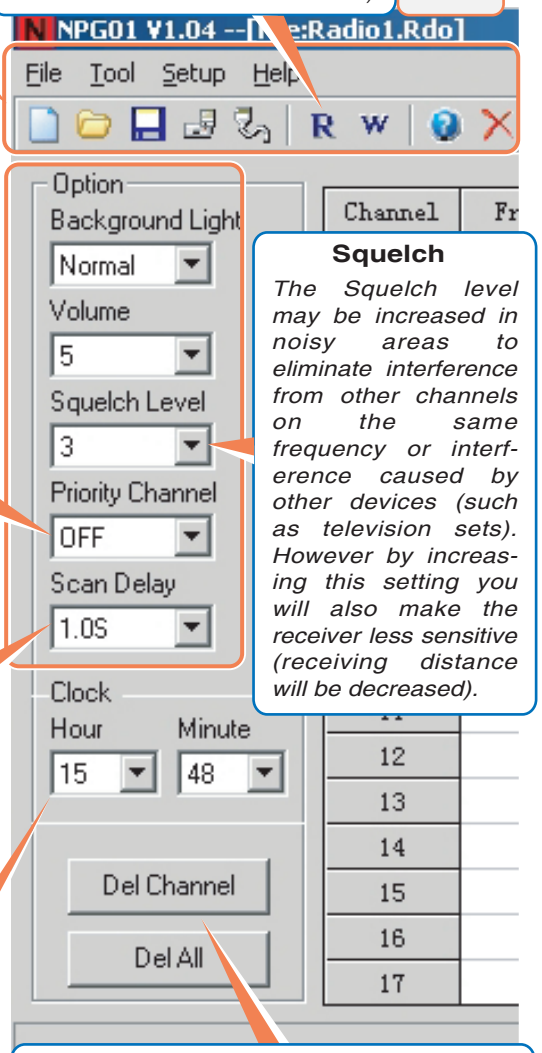
Read & Write
These Buttons will Read or Write to the Receiver (the PC lead must first be connected between the PC and Receiver)

Receiver Displays

Priority Scan
If during scanning you want to connect to your favourite Mosque (i.e Mosque programmed in Channel 1) then select Channel 1 here.

Scan Delay
This is how long the receiver will remain in a channel as the unit has received a signal and has stopped on it, until it begins scanning again or remains on that channel if you cancel scanning by pressing the scan button again

Clock Setup
This option will quickly set up the clock.



Squelch
The Squelch level may be increased in noisy areas to eliminate interference from other channels on the same frequency or interf-erence caused by other devices (such as television sets). However by increas-ing this setting you will also make the receiver less sensitive (receiving distance will be decreased).

Delete Options
Del Channel *will delete all the information on any selected channel.*

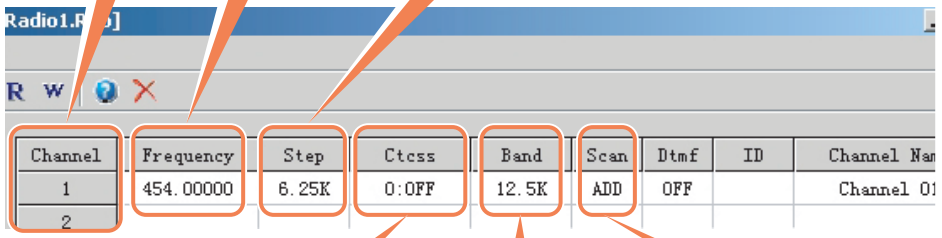
Del ALL *will delete ALL the programmed information in ALL channels!*

NG01 Programming – by PC – *cont ...*

Channel Selection ***program or delete***
'Clicking' on any of the numbers in the Channel column will highlight that channel ready for programming or deleting

Entering Frequency
'Clicking' into the Frequency entry box will allow the entry of frequency anywhere between

Selecting Steps
'Clicking' into the channel STEP box will allow you the change to either 5.00K or 6.25K steps for programming



CTCSS Option
Select a CTCSS number ONLY if your mosque is transmitting a CTCSS tone of the same number otherwise leave as OFF.
IF set to OFF, DO NOT enter anything here otherwise your receiver will NOT hear any broadcasts on this channel without receiving a valid CTCSS tone!

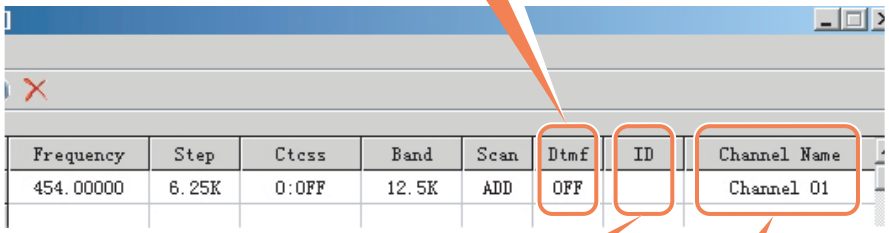
Band Option
In most cases the frequencies you will enter (particularly newer systems) will be 12.5 kHz channel spacing (also called NARROW BAND). However, some older systems operate on 25kHz channel spacing & can be entered into your receiver (also called WIDE BAND channels)

Scan List ***to add or delete***
Select ADD if you want to add this particular channel to the scan list ie: one or more mosque channels

NG01 Programming – by PC – *cont ...*

DTMF Option

Do not enter any information here unless your mosque has installed a special paging system into their transmitter which, if fitted will page your receiver (with 'BEEPS') to let you know about a special or urgent message about to be transmitted from your mosque



DTMF ID Option

IF the DTMF function (Above) is fitted then a unique number will be entered here at the factory.
DO NOT enter anything here otherwise or your receiver will NOT hear any broadcasts without receiving a valid DTMF tone!

Channel Name

This will enable you to give the channel an appropriate name like 'Jamia Mosque' or 'London Road' to easily identify which mosque has been programmed into a particular channel instead of just the channel number

Shortcut Hot Keys

Shortcut keys to speed up actions to assist programming:

ctrl + r *Read data from radio*
ctrl + w *Write data to radio*
ctrl + s *Save current data to current file*
ctrl + a *Save current data to another file*
ctrl + o *Open old data saved by NG-01 before*
ctrl + n *Create a new file*

Azaan Systems

Questions and Answers

We are often asked about the uses and limitations of Azaan or Call to Prayer systems, here are some of them:

"Why do we have Call to Prayer Systems?"

- A few years ago the Radiocommunications Agency which has now been replaced by an agency called OFCOM, made available a number of private mobile radio channels *(similar to those used by security and taxi companies)* for places of worship to use a method of call to prayer.

"Why can't I receive my local mosque from a longer distance?"

- Due to overcrowding in many towns, there were not enough channels to meet the demand and as a result all new licences for the past few years have been restricted for a mosque to transmit only about 3 kilometres. By restricting the range of transmission, OFCOM are able to re-issue a channel in built-up areas, many times. The only way to extend the range of reception is to install a special aerial on top of your house. - *see Additional Accessories*

Additional Accessories

Booster Aerial

A special Booster aerial has been specially developed to enhance the incoming signal to our receivers.
This specially designed aerial can increase the signal reception from the Azaan System transmission from your local mosque to your home **by up to 10 to 15 miles.**
In areas where signals are weak or noisy, installing this outdoor aerial in the direction of the mosque will considerably boost the signal and may allow others who were outside the coverage area to receive the signals into their homes.

Trouble Shooting

No.	Problem	Solution
1	No display	- Rechargeable Batteries - recharge or replace
	& no warning tone	- Alkaline Batteries - reposition or replace
2	Too noisy	- Check antenna
		- Change your location
		- Recharge Batteries
3	Message not received	- Confirm receiver has a valid channel
		- Confirm CTCSS & DTMF numbers are the same
		- Change your location
		- Check antenna

Technical Specification

band	UHF
frequency range	420 to 470 MHz
audio distortion	≤5%
number of channels	99
frequency stability	ppm
reference sensitivity	≥0·25 µV 12 dB for 430 to 460 MHz ≥0·6 µV for 420 to 430 MHz or 460 to 470 MHz
audio–signal ratio	40 dB
adjacent selectivity	≥60 dB
spurious response rejection	≥60 dB (W), 55 dB (N)
inter–modulation rejection	≥55 dB, 12·5 kHz ≥60 dB, 25 kHz ≥65 dB, 50 kHz
charger power input	240 V
receiver power	7·2 V

Factory Settings

CH 1	454.39375 MHz	CH 11	454.17500 MHz
CH 2	454.40625 MHz	CH 12	454.25000 MHz
CH 3	454.79375 MHz	CH 13	454.27500 MHz
CH 4	454.80625 MHz	CH 14	454.30000 MHz
CH 5	454.02500 MHz	CH 15	454.32500 MHz
CH 6	454.05000 MHz	CH 16	454.35000 MHz
CH 7	454.07500 MHz	CH 17	454.70000 MHz
CH 8	454.10000 MHz	CH 18	454.77500 MHz
CH 9	454.12500 MHz	CH 19	454.78750 MHz
CH 10	454.15000 MHz	CH 20	454.82500 MHz

About Us

Nabishi UK Limited, established in 1984 are a leading supplier and manufacturer of Radio Communications equipment with a worldwide reputation.

Our experts have many years of experience in the design of all types of transmitter, receiver, antenna and their location. We have specially designed this Azaan receiver to enable you to hear important Azaan messages of prayer beyond the Mosque walls - at home or place of work.

Note

We have a policy of continuous improvement and reserve the right to amend this specification without notice. Please check our website for latest information.

Nabishi® RADIO and COMMUNICATIONS

Nabishi UK Ltd
16c Upton Road
Dee Road Industrial Estate
Tilehurst • Reading • Berkshire • RG30 4BJ
Freephone *0800 854 737*
Web *www.nabishi.com*
e-mail *sales@nabishi.com*

Issue 8.04a